

ABSTRACT

A radio frequency electronic filter includes an input, an output, and first and second resonators coupled to the input and the output, with the first resonator including a first voltage tunable dielectric varactor and the second resonator including a second voltage tunable dielectric varactor. The resonators can include a lumped element resonator, a ceramic resonator, or a microstrip resonator. Additional voltage tunable dielectric varactors can be connected between the input and the first resonator and between the second resonator and the output. Voltage tunable dielectric varactors can also be connected between the first and second resonators.